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Amazon Malaria Initiative (AMI)

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Country Spotlight

Brazil

The 13th National Meeting on Malaria Research was held in Manaus, Amazonas from November 20-23, 2013. At the meeting, the Brazilian Ministry of Health announced that Amazonas state would receive additional support from the national government to reinforce malaria control and surveillance efforts in view of the 120,000 tourists expected to visit the state during the 2014 World Cup.

Colombia

The National Program for Promotion, Prevention and Control of Vector Borne Diseases (NPVBD, *Programa Nacional de Promoción, Prevención y Control de las Enfermedades Transmitidas por Vectores*) implemented an electronic system for requisition and dispatch of pharmaceuticals with technical assistance from MSH.

From December 4-6, 2013, the NPVBD held a meeting for department level staff to present the national guidelines to strengthen the NPVBD by implementing an integrated management strategy, slated to begin in 2014.

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Amazon Malaria Initiative Group



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AMI's flickr page

Opportunities

The European Commission has published a Call for Proposals under its Development Cooperation Instrument thematic program “Investing in People: Good Health for All.” The specific Call for Proposals will give priority to actions supporting public health institutes in low-income countries that:

- Develop a credible approach to link public health research, sector policy dialogue and training to policy development and implementation in areas conducive to universal health coverage and increased equity in health;
- Present a partnership that has a transnational dimension, and foster South-South cooperation among public health institutions.

Applicants may submit Concept Notes for “Supporting public health institutes” by the deadline of March 17, 2014. [Click here](#) for the application guidelines in English, Spanish, and French.



International Partner Highlights

The Pan American Health Organization (PAHO) organized a coordination meeting entitled “Addressing the suspected emergence of resistance to artemisinin in the Americas: A Coordination Meeting on the Implementation of Recommendations in the Guiana Shield Regarding Reduced Sensitivity to Artemisinin” in Cayenne, French Guiana, from October 22-23, 2013. Representatives from Brazil, French Guiana, Guyana, and Suriname, the World Health Organization, PAHO, the United States Agency for International Development, the Roll Back Malaria Partnership, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Bill & Melinda Gates Foundation participated. This activity followed three previous meetings, and is part of the regional response to the results of efficacy studies carried out in Guyana and Suriname suggesting reduced *P. falciparum* parasite clearance rates with artemisinin. The recommendations from this meeting will be presented during the AMI annual meeting scheduled for March 2014.

PAHO distributed the regional bulletin for anti-malarial stocks corresponding to the third quarter of 2013, with assistance from MSH/SIAPS. Including Central American countries, eight countries provided data for the bulletin, and supported the completion of the second round of the External Quality Assurance Program (EQAP) for malaria microscopy diagnosis, implemented with participation from 22 National Reference Laboratories in the Americas.



Photo: Neil Palmer/CIAT for CIFOR

2014 Events and Meetings

February

- **80th American Mosquito Control Association (AMCA) Annual Meeting.** February 2-6, 2014. Seattle, WA, USA
- **Keystone Symposia on Molecular and Cell Biology: The Science of Malaria Eradication.** February 2-7, 2014. Mérida, Mexico
- **Workshop to present KAP study on antimalarial access and use in gold mining areas, and to design a strategy to confront issues that have been identified.** Co-hosted by MSH. February 26, 2014. Suriname

March

- **AMI/RAVREDA Annual Evaluation and Steering Committee Meeting.** March 10-14, 2014. Nicaragua
- **International Day for the Elimination of Racial Discrimination.** March 21, 2014.

April

- **World Health Day 2014.** Vector-Borne Diseases. April 7, 2014.
- **Global Health & Innovation Conference (GHIC 2014).** April 12-13, 2014. New Haven, CT, USA
- **World Malaria Day.** April 25, 2014.

May

- **ISNTD d3 (Drug Discovery & Development).** May 15, 2014. The International Society for Neglected Tropical Diseases (ISNTD). London, United Kingdom

June

- **Science of Eradication: Malaria.** Malaria leadership development course. June 1-10, 2014. Basel, Switzerland

August

- **International Day of the World's Indigenous Peoples.** August 9, 2014.

September

- **AMI/RAVREDA Steering Committee Meeting.** September 2014. Washington, DC, USA

November

- **American Society of Tropical Medicine and Hygiene 63rd Annual Meeting.** November 2-6, 2014. New Orleans, LA, USA
- **Malaria Day in the Americas.** November 6, 2014.
- **American Public Health Association (APHA) 2014 142nd Annual Meeting.** November 15-19, 2014. New Orleans, LA, USA
- **Entomology 2014: 62nd Annual Meeting of the Entomology Society of America.** November 16-19, 2014. Portland, OR, USA

December

- **International Day of People with Disabilities.** December 3, 2014.
- **Release of WHO's World Malaria Report: 2014**
- **International Migrants Day.** December 18, 2014.

International Partner Highlights (continued)

Malaria Day in the Americas was celebrated on November 6, 2013 at **PAHO** headquarters in Washington DC, with a well-attended forum. On the same day, the Colombia Malaria Project was honored as Malaria Champion of the Americas 2013, while special recognition was given to the malaria program of the Dominican Republic for its cross-border coordination with Haiti, and to the State Health Department of Acre, Brazil for its sustained excellence in malaria control.

In late 2013, **Links Media** rejoined the Initiative as AMI's communication partner and has since re-launched the usaidami.org website, re-engaged with AMI's online communities via Facebook, LinkedIn, and Twitter, created a new Flickr profile to share photographs, established a cloud presence on Google Drive for partner file sharing, and advanced communications planning. As part of strategic planning, Links Media will circulate an advocacy strategy for AMI, and design communication strategies for each participating Amazon basin country, the Central America sub-region, and AMI's response to possible emergence of reduced sensitivity to artemisinin. During 2014-2016, Links Media will also develop and disseminate press and educational materials in English, Spanish, and Portuguese, conduct virtual communication trainings, compile and develop AMI's annual achievement report, and provide selective editorial and graphic design support to partners.

During October-December 2013, Management Sciences for Health (**MSH**) finalized its Spanish-language publication, "Practical Guidelines for the Reduction of Temperature in Pharmacies Located in Tropical Areas." In Loreto, Peru, MSH trained technicians in charge of regional and local medicines warehouses on the implementation of a Standard Operating Procedure (SOP) for the distribution of malaria medicines and commodities, and on the information system used to manage supplies and supervise health facilities. After using the adequacy approach to assess Brazil's implementation of insecticide-treated bed nets, rapid diagnostic tests, indoor residual spraying, and artemisinin-based combination therapy, MSH assisted malaria control programs from nine Brazilian States in the preparation of plans to improve their performance. Finally, MSH also concluded a knowledge, attitudes and practices (KAP) study to assess antimalarial access and use in Suriname gold mining areas, which will be discussed at an upcoming one-day workshop (see 2014 Events and Meetings).

In December 2013, U.S. Pharmacopeial Convention (**USP**) announced an extension of USAID's Promoting the Quality of Medicines (PQM) program to September 2019. Under PQM, USP currently works in Brazil, Colombia, Ecuador, Guatemala, Guyana, Peru and Suriname. USP's activities aim to institutionalize the three-level approach for medicine quality control monitoring (a framework that supports a more extensive, cost effective and rapid assessment of the pharmaceutical market in urban areas and peripheral locations), strengthen official medical control laboratories' capabilities to perform analysis of antimalarials, and strengthen medicine regulatory authorities.

The United States Agency for International Development (**USAID**) has prepared for an external evaluation of the Amazon Malaria Initiative to be carried out between January and March 2014. The questions the evaluation aims to answer include:

- Was the design and evolution of AMI effective in achieving its expected results while responding to country and regional needs?
- Was AMI effective in implementing activities?
- Did AMI contribute to have countries adequately implementing malaria prevention and control interventions?
- Did AMI contribute to the sustainability of the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) and of malaria prevention and control activities in the countries?
- Was AMI efficient?
- What should AMI's strategic direction be if extended beyond 2015?

Global Malaria News

Can chloroquine resistance be reversed?

In response to drug resistance, Purdue University researchers have designed chemical compounds that work against chloroquine-resistant *P. falciparum* malaria parasites. The compounds, which are a set of dimeric quinine molecules also known as “quinine dimers,”

were found to be effective against chloroquine-resistant parasites. Analysis shows that quinine dimers are capable of killing the drug-resistant parasites because they bind to and block the chloroquine

resistance transporter PfCRT. Quinine dimers block the normal function of the resistance-conferring protein and resensitize the parasites to chloroquine. Read the study by Christine Hrycyna, Rowena Martin, Jean Chmielewski and colleagues published in [ACS Chemical Biology](#)

Fragile gains against malaria must be maintained

The World Health Organization (WHO)'s *World Malaria Report 2013* showed that malaria mortality rates fell by 45% globally and by 70% in the Americas from 2000-2012. Global incidence of malaria fell by 29% during the same period, and incidence in the Americas fell by 58%. Increased political commitment and expanded funding have helped to achieve these significant reductions, however the WHO stressed that gains against malaria remain fragile and must be maintained.

Executive summary and key points available in English, Spanish, and French at: [World Malaria Report 2013](#)

New diagnostic test may be able to detect malaria without a single drop of blood

Researchers at Rice University announced upcoming human trials of a new diagnostic test for malaria that uses non-invasive laser pulses instead of blood. This laser test detects acoustic signals when the vapor nanobubbles that form around “hemozoin,” a unique component of all blood-stage malaria parasites, burst.

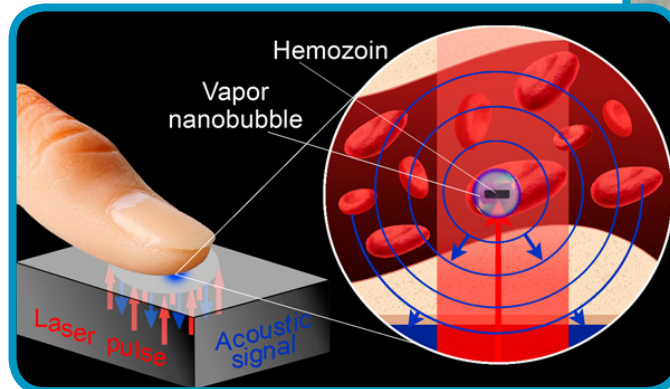


Image: Medgadget.com. E. Lukianova-Hleb/Rice University

The test takes advantage of the specific properties of hemozoin when pulsed with light. The potential to detect and screen malaria in seconds holds promise as a field technology that would be compact, easy-to-use, inexpensive, and safe. Read the article by Ekaterina Y. Lukianova-Hleb and colleagues entitled “Hemozoin-generated vapor nanobubbles for transdermal reagent- and needle-free detection of malaria” at: [Proceedings of the National Academy of Sciences of the United States of America](#)

